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악성 종양으로 의심되었던 경부
거대 평활근종 케이스 보고

(Giant Leiomyoma of the Cervical Paravertebral
Space Mimicking a Malignant Soft Tissue
Tumor: A Case Report)



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Purpose: Leiomyoma is a benign smooth muscle tumor most commonly arising in the uterus and extremities. Occurrence in the deep cervical space is extremely rare and may mimic malignant soft tissue tumors on imaging studies.

Methods: A 44-year-old woman presented with a three-month history of a right-sided neck mass accompanied by mild discomfort. MRI demonstrated an approximately 11-cm mass with T1 iso-signal intensity relative to muscle, heterogeneously high signal intensity on T2-weighted images, and strong homogeneous enhancement, displacing the right brachial plexus anteriorly. Radiologic differential diagnoses included leiomyoma and low-grade leiomyosarcoma.



Figure.1 Preoperative clinical photograph showing a prominent swelling in the right posterior cervical region (red circle), corresponding to a large paravertebral mass.

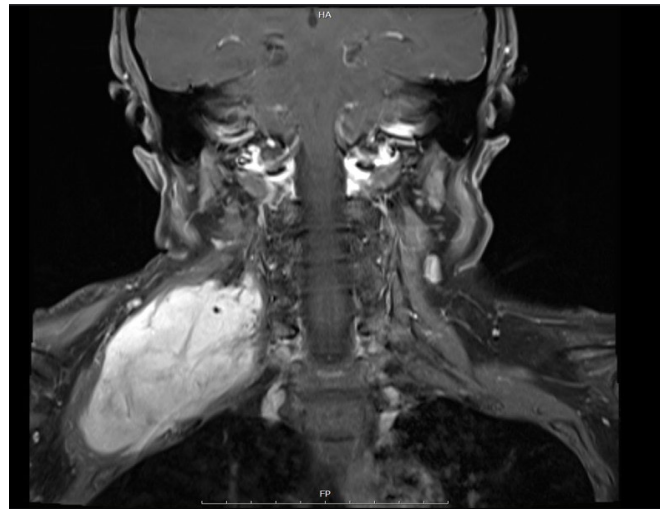


Figure 2. Coronal contrast-enhanced MRI showing a large enhancing mass in the right cervical paravertebral space, displacing adjacent structures and extending along the posterior neck.

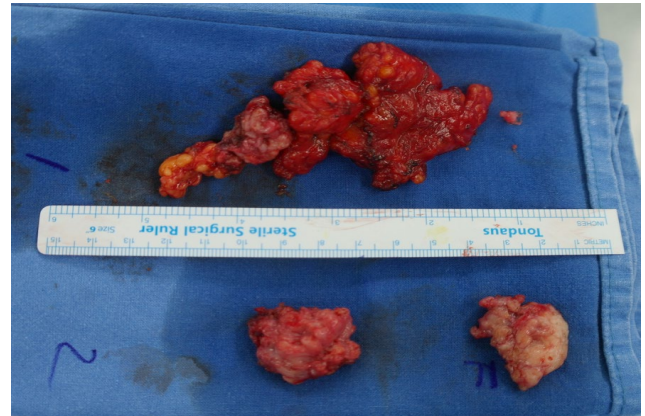


Figure 3. Gross photograph of the excised soft tissue mass.

Results: Ultrasound-guided core needle biopsy was performed preoperatively, suggesting leiomyoma. Intraoperatively, the tumor was adherent to surrounding soft tissues within the paravertebral space, making dissection challenging. Histopathologic examination confirmed leiomyoma. Immunohistochemical staining demonstrated positivity for smooth muscle actin, while S-100, CD117, CD34, and desmin were negative. The Ki-67 proliferation index was low (1%), supporting the benign nature of the lesion.

Conclusion: Deep cervical Leiomyoma is a rare benign tumor that may closely mimic malignant soft tissue tumors on radiologic evaluation. Complete surgical excision is generally considered the treatment of choice and is usually curative. However, in deep neck locations such as the paravertebral space, complete resection may be technically challenging due to the proximity of critical neurovascular structures including the brachial plexus and major vessels. In such cases, subtotal resection may be considered to preserve neurological function and prevent surgical morbidity. Therefore, careful postoperative surveillance with periodic imaging can be an acceptable management strategy when complete resection is not feasible.